

***Remarks***

Reconsideration of this Application is respectfully requested.

Claims 1-3, 5-7, 9-10, 13, 15, and 18-24 are pending in the application, with 1 and 24 being the independent claims. No amendments have been made at this time.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

***Information Disclosure Statement***

Applicants respectfully request that the Examiner consider, and acknowledge consider of, and Information Disclosure Statement filed April 17, 2008.

***Rejections under 35 U.S.C. § 103*****Claims 1 and 24**

In paragraph 5 of the Office Action, claims 1-3, 5-7, 9, 13, 15, 19-21, and 24 were rejected 35 U.S.C. § 103 (a) as allegedly being unpatentable over U.S. Patent No. 6,399,261 to Sandstrom (hereinafter "Sandstrom") in view of U.S. Patent No. 6,014,360 to Yonekubo *et al.* (hereinafter "Yonekubo"), and in further view of U.S. Patent No. 5,253,236 to Latta *et al.* (hereinafter "Latta"). Applicants respectfully traverse this rejection.

Claim 1 recites features that distinguish over the applied references. For example, claim 1 recites: "using a semi-plane knife-edge to block, from one side, a zero order lobe of a pixel diffraction pattern at the apodized pupil." Independent claim 24 also recites a similar feature, in respective language.

At page 3 of the Office Action, the Examiner acknowledges that Sandstrom and Yonekubo do not teach at least this feature of claims 1 and 24. Rather, the Examiner alleges that Latta overcomes this deficiency of Sandstrom and Yonekubo. Applicants respectfully disagree. At col.4, lines 41-47, Latta notes, "[t]he knife-edge technique allows the system to distinguish from the upper and lower apertures 66 and 68 in the mask of FIG. 3," cited by the Examiner on page 4 of the Office Action. This is different from using the knife-edge to block a zero order diffraction pattern because Latta, at most, teaches blocking light from upper and lower parts of a mask pattern without taking pixel diffraction pattern into account. Latta is silent about "using a knife-edge to block ...a zero order diffraction pattern," as recited in claims 1 and 24.

In fact, Latta recommends using a dual knife edge focus error technique in FIGs. 5A-B to overcome the drawbacks of a single knife-edge technique (*see*, col. 4, lines 40-41 and lines 45-50 of Latta). Therefore, Latta explicitly teaches that using a knife-edge, from one side, is a problem, and thus, teaches away from claims 1 and 24. One skilled in the art, after reading Latta, would be discouraged from using a semi-plane knife edge technique, as recited in claims 1 and 24, and would tend to use a dual knife-edge technique instead. See M.P.E.P. §§ 2141.02 and 2145(X)(D)(2); *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F.2d 720, 16 U.S.P.Q.2d 1933 (Fed. Cir. 1990) (stating the closest prior art should not be used because the closest prior art "would likely discourage the art worker from attempting the substitution suggested by the [inventor/patentee]."); *In re Gurley*, 27 F.3d 551, 31 U.S.P.Q.3d 1130 (Fed. Cir. 1994) ("A reference may be said to teach away when a person of ordinary skill, upon reading the reference, ...would be led in a direction divergent from the path that was taken by the applicant.").

At least because Latta discourages use of a single knife-edge, a person of ordinary skill in the art, upon reading Latta, would be led in a direction divergent from the teachings of claims 1 and 24, and would not be motivated to use Latta in the manner stated by the Examiner. Therefore, Latta, taken alone or when combined with either Sandstrom and/or Yonekubo, cannot be used to establish a *prima facie* case of obviousness for claims 1 and 24.

Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn, and that claims 1 and 24, and the respective dependent claims of claims 1 and 24, be passed to allowance.

**Dependent claims 10 and 18**

In paragraph 18 of the Office Action, claims 10 and 18 were rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Sandstrom in view of Yonekubo and Latta, and in further view of U.S. Patent No. 5,965,330 to Evans *et al.* (hereinafter "Evans"). Applicants respectfully traverse this rejection.

As discussed above with respect to claims 1 and 24, from which claims 10 and 18 respectively depend, Sandstrom, Yonekubo and Latta fail to teach "using a semi-plane knife-edge to block, from one side, a zero order lobe of a pixel diffraction pattern at the apodized pupil." Evans likewise fails to teach this feature. In the Office Action at page 9, the Examiner states, which Applicants do not acquiesce to, Evans teaches a method for fabricating an annular mask having diffraction-reducing edges that forms an apodized pupil using an algorithm derived apodization pattern, such that variations are present in at least one of transmittance and phase. Thus, Evans is not used to teach or suggest the above-recited feature of claims 1 and 24, nor does Evans teach or suggest this feature. Because claims 10 and 18 include all features of claims 1 and 24, claims 10 and 18

necessarily include this feature. Given that none of the applied references teach this feature, claims 10 and 18 are not obvious in view of Sandstrom, Yonekubo, Latta and Evans. Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn, and that claims 10 and 18 be passed to allowance at least for the same reasons as independent claims 1 and 24, and further in view of their own distinguishing features.

#### **Dependent claim 22 and 23**

In paragraph 21 of the Office Action, claims 22 and 23 were rejected under U.S.C. § 103 (a) as allegedly being unpatentable over Sandstrom in view of Yonekubo, in further view of Latta, and in further view of U.S. Patent No. 6,369,879 to Pedersen (hereinafter "Pedersen"). Applicants respectfully traverse this rejection.

As discussed above with respect to claims 1 and 24, from which claims 22 and 23 respectively depend, Sandstrom, Yonekubo and Latta fail to teach "using a semi-plane knife-edge to block, from one side, a zero order lobe of a pixel diffraction pattern at the apodized pupil." Pedersen likewise fails to teach this feature. In the Office Action at page 9, the Examiner states, which Applicants do not acquiesce to, Pedersen teaches a method for determining the coordinates of an object. Thus, Pedersen is not used to teach or suggest the above-recited feature of claims 1 and 24, nor does Pedersen teach or suggest this feature. Because claims 22 and 23 include all features of claims 1 and 24, claims 22 and 23 necessarily include this feature. Given that none of the applied references teach this feature, claims 22 and 23 are not obvious in view of Sandstrom, Yonekubo, Latta and Pedersen. Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn, and that claims 22 and 23 be passed to

allowance at least for the same reasons as independent claims 1 and 24, and further in view of their own distinguishing features.

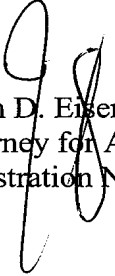
### ***Conclusion***

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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